UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF THE
REGIONAL
ADMINISTRATOR

JUN 18 2014

Mr. Tim Murphy
Acting State Director
Bureau of Land Management
1387 South Vinnell Way
Boise, Idaho 83709

Dear Mr. Murphy:

The U.S. Environmental Protection Agency has reviewed the draft Environmental Impact Statement (EIS) and Resource Management Plan Amendment for the Proposed Modification to the Thompson Creek Mine Plan of Operations, Section 404 Clean Water Act Permit Application, and Public Land Disposal, Custer and Bannock Counties, Idaho. Our review and comments are provided in accordance with our responsibilities under the National Environmental Policy Act, the Council on Environmental Quality's NEPA Implementation Regulations at 40 CFR 1500-1508, and our review authority under Section 309 of the Clean Air Act.

The EPA appreciates the opportunity to review the draft EIS for the Phase 8 mine expansion, extending the life of the mine for an additional 10 to 15 years. In our role as a cooperating agency, we provided comments to the Bureau of Land Management (BLM) on preliminary versions of this document and appreciate the changes BLM has made, such as including enhancements to environmental controls and mitigation measures in the current reclamation plan. More importantly, the action alternatives include a plan for management of contaminated water in perpetuity, and a framework for an adaptive management plan to respond to risks and uncertainties regarding site conditions that may impact groundwater, as well as interconnected surface water improvements. In addition, the draft EIS clarifies BLM's commitment to secure adequate financial assurance prior to approving the land exchange, using a mechanism similar to one the BLM would normally require on lands under their management, although a sample agreement has not yet been developed.

The draft EIS does not provide detailed information on funds that would be made available post closure to treat the resulting mine-influenced water in perpetuity. The EPA's independent estimate of financial assurance needed for long term water quality treatment, maintenance and operation for Phase 8, using a scenario for an unplanned closure, could be up to $77.8 million (copy enclosed). However, the existing trust fund to cover earlier mine operations is $42.3 million and covers only reclamation, not post closure operations and water quality treatment. The EPA also completed a CERCLA Site Inspection (SI) Report in December, 2013, and provided copies to BLM, the State, the Thompson Creek Mining Company (TCMC), and other cooperating agencies (copy enclosed). The EPA concluded in the SI report that there is a significant potential for major releases from the site, with the potential for adverse downstream impacts based on the presence of elevated concentrations of metals in the surface water bodies located within 15 miles downstream of the site. These potential impacts are largely due to the uncertainty of long-term water treatment and a lack of financial assurance. Based on the level of environmental risk,

the EPA strongly recommends that BLM determine and disclose the amount of financial assurance that will be required. This information should be provided in a Supplemental Draft EIS.

For the reasons discussed above, the EPA is rating the draft EIS as "3-Inadequate" (an explanation of our rating system is enclosed). The EPA would like to continue our discussions with you so that we can develop a path forward. Attached are detailed comments on these specific issues for your consideration. We are committed to continuing our discussions to resolve the issues identified in our comments.

We appreciate the time and effort that you and your staff have devoted to discussing, with the EPA, the important larger issues of financial assurance for mining on federal lands. We look forward to continuing the national interagency dialogue on this subject to seek resolution between our agencies on this issue. In the meantime, the EPA continues to believe that the adequacy of financial assurance is a critical element to be disclosed during the NEPA process.

Thank you for the opportunity to provide comments on this draft EIS. Please contact David Allnutt, Director of the Office of Ecosystems, Tribal and Public Affairs at 206-553-2581 or Christine Reichgott, Manager of the Environmental Review and Sediment Management Unit at 206-553-1601 if you have questions.

Sincerely,

Dennis J. McLerran
Regional Administrator

Enclosures

cc: Mr. Greg Martinez, Regulatory Project Manager
US Army Corps of Engineers, Boise Regulatory Office

Ms. Katheryn Goessel, Geologist
US Forest Service, Challis-Yankee Fork Ranger District

Mr. Gary Billman, Land Resource Specialist
Idaho Department of Lands

Mr. Troy Saffle, Regional Manager Water Quality
Idaho Department of Environmental Quality

EPA Detailed Comments on Thompson Creek Mine Draft EIS

Financial Assurance and Environmental Risk

Hardrock mines without appropriate financial assurance can pose significant risks to human health and the environment, and financial risk to responsible parties and the public if cleanup of the mine site becomes necessary.[1] The EPA has stressed the importance of establishing and disclosing the details of financial assurance for reclamation and long-term water management over the last decade at the Thompson Creek Mine site. The draft EIS provides general information about the process to establish financial assurance. We appreciate the mention of the EPA's independent estimate,[2] which calculated a gap in the current bond ranging approximately from $25 million to $78 million, depending on the discounted rate of return. However, detailed information about funding for long-term water management/treatment is not included in the draft EIS. Therefore, without this information the EPA cannot determine whether water management and source control will be adequate to protect beneficial uses and habitat. The most stringent parameters and metals criteria are for the protection of cold water aquatic life and salmonid spawning. In addition, the Salmon River in the analysis area is designated as a domestic water supply. The draft EIS states that active water treatment is required to meet applicable laws and regulations. Therefore, water quality standards violations would occur without treatment.

We understand that the BLM intends to begin updating the current financial guarantee (Phase 7 mine plan) to include long-term water treatment with the goal of finalizing the process prior to release of the final EIS. We would encourage the BLM to initiate this process promptly, particularly since the need for long-term water treatment currently exists, and a guarantee should be in place if the mine undergoes unplanned, early closure.

Proposed Land Exchange

Section 4-134 of the draft EIS describes BLM's commitment to condition the Record of Decision on the establishment of an irrevocable trust fund or similar mechanism per 43 CFR 3809.552(c) for long-term requirements between the TCMC and the Idaho Department of Lands. However, the pertinent details regarding this arrangement are currently unknown. While a legal agreement may be developed, the EPA is not aware of any State authority to require financial assurance for water treatment. Water treatment in perpetuity has been identified as an integral component of the proposed action. We recommend that the Supplemental draft EIS provide an example of a binding agreement that would ensure implementation of post-closure water management and treatment tasks.

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[1] For example, EPA chose classes of facilities within the hardrock mining industry as the first for which EPA would develop financial responsibility requirements under CERCLA Section 108(b), based upon those facilities' sheer size; the enormous quantities of waste and other materials exposed to the environment; the wide range of hazardous substances released to the environment; the number of active hardrock mining facilities; the extent of environmental contamination; the number of sites in the CERCLA site inventory, government expenditures, projected clean-up costs and corporate structure and bankruptcy potential. Identification of Priority Classes of Facilities for Development of CERCLA Section 108(b) Financial Responsibility Requirements, 74 Fed. Reg. 37,213 (July 28, 2009).

[2] US EPA. 2013. *Preliminary Financial Assurance Cost Estimate for Thompson Creek Mine Reclamation and Closure Interim Operations, Water Management and Treatment, and Long-Term Monitoring and Maintenance.*

CERCLA Site Inspection

The EPA completed the SI Report for TCMC in December 2013 and provided a copy for your consideration. The SI Report was conducted using a large amount of pre-existing data characterizing TCMC and its setting, collected by various mine operators and agencies over the past 30+ years to support a variety of objectives, including mine development, permitting and compliance activities, and three separate EISs.

The SI is a standard part of the CERCLA process used primarily to determine whether further action at a particular site is warranted. The TCMC SI addressed the typical components of a CERCLA SI: analysis of site sources, pathways and targets (human and environmental), for the purpose of determining potential threats to human health and the environment, the potential for releases of hazardous substances to the environment, and the potential placement of the site on the National Priorities List. This SI added two key sections not typically included: 1) an analysis of data gaps from a CERCLA perspective and 2) an analysis of potential release scenarios in the absence of long-term water treatment. EPA concluded in the SI that there is significant potential for major releases from the site to have major downstream impacts. Due to the volume of source material and potential for future releases, particularly in the absence of sufficient financial assurance for long-term water treatment, a significant potential threat to public health or the environment is posed by the TCM. The presence of significant (as defined in the SI section 3) concentrations of metals in the surface water bodies located within 15 miles downstream of the site (the Target Distance Limit), indicate that there have been and continue to be releases of hazardous constituents to the environment. These releases, coupled with the potential impacts to targets in these water bodies, create this significant potential threat. Potentially effected targets include the federal-listed threatened or endangered bull trout, Chinook salmon, sockeye salmon, and steelhead, as well as critical habitat for steelhead and bull trout, and the possible presence of wetlands. These potential impacts are largely due to the uncertainty of long-term water treatment because of a lack of financial assurance. For this reason, further action under CERCLA is recommended as a potential tool for the TCM site to ensure, at a minimum, the adequacy of financial assurance.

Adaptive Management Plan

The EPA has previously commented about the importance of including details for the adaptive management plan in the EIS. The EIS (Chapter 4, p 4-172) refers to an Adaptive Management Plan (Lorax, 2012b) that would be incorporated into the overall plan of operations for the facility. The adaptive management plan is a framework for how TCMC would address risks and uncertainties associated with protection of groundwater and interconnected surface water. We believe the Adaptive Management Plan is an integral component of the mitigation strategy for the project and should be described more explicitly in the final EIS. In addition, the final EIS should describe the process for revising and approving the plan prior to incorporation into the plan of operations. We believe the Adaptive Ground Water Management plan is an effective way to plan and communicate strategies for monitoring and responding to impacts to ground water.

We appreciate the recent call that BLM coordinated to specifically discuss including adaptive management information and their consideration of EPA's suggested example table

demonstrating the elements of adaptive management (resource, monitoring, trigger, action, responsible party). We understand that the BLM intends to include this level of information in the final EIS. With regard to summarizing the elements of the adaptive management plan, the EIS should include a table that describes the key components of the Adaptive Management Plan, including a statement of expectations, specific use of monitoring data, as well specific parameters and monitoring frequency, action or trigger levels, resultant changes in operations, and the timing of follow-up actions. In addition, we recommend that, prior to approval, the plan be expanded in scope to address unanticipated, but reasonably foreseeable mine failure scenarios that can happen at a large, complex site such as TCMC, such as pipeline failures, spills, leaks, and slope failure. This type of plan would ensure that water quality and post-mining land use objectives can be achieved and sustained in the future, and would help avoid the types of problems that have occurred at other large, complex mine sites.

Preferred Alternative - Land Exchange

The draft EIS analyzed Alternatives L1 (No Action) through L5 for the proposed land exchange. The alternatives all include the same parcels suitable for disposal under the Federal Land Policy and Management Act; however the details of the alternatives differ. For instance, alternatives differ on aspects such as an exchange or a sale, area size, or inclusion of conservation easements on the BLM selected lands. The draft EIS identified L2 (land exchange with no provisions) as the Preferred Alternative. The EPA encourages the BLM to consider provisions similar to L5, which includes conservation easements. The analysis area includes Thompson Creek- a tributary to the Salmon River. The Salmon River hosts a number of species listed under the Endangered Species Act (e.g., bull trout, Chinook salmon, steelhead, and sockeye) and is one of the most productive fisheries in the State of Idaho. In addition, most of these species also occur in Thompson Creek. We believe it is essential to ensure that riparian areas (similar to proposed conservation easements in L5) are conserved to protect beneficial uses.

Access to Referenced Reports and Data

The final EIS should ensure that citations are available, and include an annotated summary table to assist in easily accessing the various documents related to water resources and the original data sources. Evaluating the results of water quality predictions is exceedingly difficult without the use of separate water resources technical reports by JBR that collated data from multiple Lorax reports.

Mitigation - Waters of the United States

We greatly appreciate the clarifications and additions to the Clean Water Act Section 404(b)(1) Analysis and Mitigation Plan (e.g., hydrology, plant community, aquatic resource functions). However, the level of detail provided in these two documents is not sufficient to determine compliance with the 404(b)(1) Guidelines- specifically Subpart J: Compensatory Mitigation for Losses of Aquatic Resources. In particular, a 1:4 mitigation ratio for impacts to headwater streams does not appear to comply with the Final Mitigation Rule, which states: "The amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions. In cases where appropriate functional assessment methods or other suitable metrics are available, these methods should be used where practicable to determine how much compensatory mitigation is required. If a functional or conditional assessment or other suitable metric is not used, a minimum one-to-one acreage or linear foot compensation ratio must

be used." The EPA acknowledges that Squaw Creek may serve as an appropriate location for permittee-responsible mitigation; however, it remains unclear how stream bank fencing and stabilization in livestock areas correlate to lost aquatic resource functions at the mine site. The EPA will continue to work with the U.S. Army Corps of Engineers to resolve issues related to compensatory mitigation through the 404 permitting process.

Enclosure 1

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action*

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.